

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|---|------------------|---------|------------------|
| L1 | 61 | surveillance same camera same compress\$4 same encod\$4 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | SAME | ON | 2006/01/19 14:32 |
| L2 | 3 | (surveillance same camera same compress\$4 same encod\$4) and "386"/\$.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | SAME | ON | 2006/01/19 14:24 |
| L3 | 830 | "386"/117.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | SAME | ON | 2006/01/19 14:24 |
| L4 | 388 | "386"/117.ccls. | USPAT | SAME | ON | 2006/01/19 14:24 |
| L5 | 34 | surveillance and (camera same compress\$4 same encod\$4 same record\$4) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | SAME | ON | 2006/01/19 14:35 |
| L6 | 38 | magneto optical same phase transition | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | SAME | ON | 2006/01/19 14:38 |
| L7 | 29 | magneto optical same (phase near5 transition) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | SAME | ON | 2006/01/19 14:38 |

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|--|------------------|---------|------------------|
| L1 | 709 | (exchang\$4 or chang\$4) near15 (tape or dis? or medium) near15 (temporar\$4 or buffer) near15 record\$4 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | SAME | ON | 2006/01/19 10:48 |
| L2 | 56 | ((exchang\$4 or chang\$4 or replac\$4) near5 (tape or dis? or medium)) near15 (temporar\$4 or buffer) near15 record\$4 near15 continu\$6 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | SAME | ON | 2006/01/19 11:03 |
| L3 | 28 | ((exchang\$4 or chang\$4 or replac\$4) near5 (tape or dis? or medium) near5 new) same (temporar\$4 or buffer) near15 (record\$4 near15 continu\$6) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | SAME | ON | 2006/01/19 11:04 |
| L4 | 33 | ((exchang\$4 or chang\$4 or replac\$4) near5 (tape or dis? or medium) near5 new) same (temporar\$4 or buffer) same (record\$4 near15 continu\$6) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | SAME | ON | 2006/01/19 11:06 |

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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Table of Contents] This invention is explained in order of the following.

Technical-problem The means for solving a technical problem which technical invention of the Field of the Invention former tends to solve (drawing 1 - drawing 4)

Operation (drawing 1 and drawing 3)

Example (drawing 1 - drawing 4)

Effect of the invention [0002]

[Industrial Application] this invention -- the record approach and a recording device -- being related -- for example, an image -- and -- or it applies to the record approach and recording device which record continuation information, such as voice, and is suitable.

[0003]

[Description of the Prior Art] The need of exposure time determining a metaphor in a video camera conventionally according to the die length of the magnetic tape with which it is loaded, and advancing photography while a photography person takes the exposure time concerned into consideration is

[0004] Therefore, in the coverage using the video camera concerned etc., the photography person managed the residue of the magnetic tape with which the video camera concerned was loaded, and the photography person has decided the exchange stage of a magnetic tape according to the contents to photo.

[0005]

[Problem(s) to be Solved by the Invention] When prolonged photography is needed from the residue of the chart lasting time of the magnetic tape with which the video camera is loaded against a photography person's prediction, it must stop however, having to exchange magnetic tapes in the middle of photography after photography initiation. Problems, like in especially photography of a natural phenomenon, it is difficult for a photography person to predict exposure time, and an important scene breaks off are *****.

[0006] Moreover, the problem on which a record image will break off on the way if tape exchange is performed during an image transcription when recording television broadcasting on videotape in non-portable VTR (video tape recorder) is *****.

[0007] as here conventional edit equipment -- Japanese Patent Application No. 5-087413 When this is recorded on other magnetic tapes as a series of information after specifying only the required part of the recording information, making this shunt to other record media and the need part of a constant rate having shunted the magnetic tape with which predetermined recording information, such as an image, was recorded beforehand as proposed by the number, there is ** when.

[0008] Therefore, it is difficult to specify the image currently recorded on real time, since it is made as [specify / out of the recording information once recorded on the magnetic tape in the edit equipment of this configuration / a required part], although how to make the image at the time of tape exchange once

shunt to other record media using the edit equipment of such a configuration can be considered, and it is

[0009] This invention was made in consideration of the above point, and it tends to propose the record approach and recording device which can be recorded continuously, without breaking off record data to the tape-like record medium before exchange, and the tape-like record medium after exchange at the time of exchange of a tape-like record medium.

[0010]

[Means for Solving the Problem] In order to solve this technical problem, it sets to this invention. In the record approach which carries out sequential record of the record data which carry out sequential arrival at an exchangeable tape-like record medium The record data DR1 are written in the record means 19 in order of the arrival from t1 temporarily the time of carrying out exchange initiation of the tape-like record medium. It is made to record on the tape-like record medium for which the record data DR1 written in the record means 19 from t2 temporarily were read in order of the writing, and were exchanged at the exchange termination time of a tape-like record medium.

[0011] Moreover, in this invention, in case the record approach is recorded on the tape-like record medium for which the record data DR1 written in the record means 19 temporarily were read from t2 at the exchange termination time of a tape-like record medium, and were exchanged, it is recorded rather than the recording rate before tape exchange at high speed.

[0012] Moreover, in this invention, the record data DR1 which carry out sequential arrival are set to an exchangeable tape-like record medium at the recording device 10 which carries out sequential record. The record data DR1 are written in in order of the arrival from t1 the time of carrying out exchange initiation of the tape-like record medium. It has the record means 19 temporarily which is recorded on the tape-like record medium for which the record data DR1 written in from t2 at the exchange termination time of a tape-like record medium were read in order of the writing, and were exchanged.

[0013] Moreover, in this invention, in case the record means 19 is recorded on the tape-like record medium for which the record data DR1 written in the record means 19 temporarily were read from t2 at the exchange termination time of a tape-like record medium, and were exchanged, it is recorded rather than the recording rate before tape exchange temporarily at high speed.

[0014]

[Function] Record data are written in a record means in order of the arrival temporarily from the time of carrying out exchange initiation of the tape-like record medium. By recording on the tape-like record medium for which the record data written in the record means from the exchange termination time of a tape-like record medium temporarily were read in order of the writing, and were exchanged It is recordable on the head of the tape-like record medium after exchanging the record data under exchange of a tape-like record medium, and the record data of this result single string can be recorded, without breaking off before and after exchange of a tape-like record medium.

[0015]

[Example] About a drawing, one example of this invention is explained in full detail below.

[0016] After changing into three primary signals R, G, and D in drawing 1 by carrying out photo electric conversion of the image light which carries out incidence to the image pick-up system 12 which 10 shows a recording device as a whole, and becomes by CCD (solid state image sensor) through optical system 11 in the image pick-up system 12 concerned, this is digitized through the analog-to-digital-conversion circuit 13, and it sends out to the camera signal-processing section 14.

[0017] After the camera section signal-processing section 14 performs signal processing, such as automatic White adjustment, black adjustment, a gamma correction, and detail signal addition, to three primary signals, it generates a luminance signal Y, two color-difference-signal B-Y, and R-Y in the matrix circuit established in the interior, and sends this out to a frame memory 15.

[0018] A frame memory 15 has the data blocking function of a 8x8-pixel unit for the compression coding processing in the continuing compression coding block 16. Compression coding of DCT conversion etc. is performed in the compression coding block 16, and the video signal read from the frame memory 15 of such a configuration is sent out to the continuing error correction code addition

circuit 17.

[0019] Moreover, after the voice inputted through the microphone 25 is digitized in the analog-to-digital-conversion circuit 26, processing of an interleave etc. is performed in the audio record digital disposal circuit 27, and it is sent out to the error correction code addition circuit 17.

[0020] After the error correction code addition circuit 17 adds an error correction code to voice data DA outputted from the image data DV outputted from the compression coding block 16, and the audio record digital disposal circuit 27, it is sent out to a record medium 19 by making this into the record data DR1 temporarily.

[0021] A record medium 19 becomes with semiconductor memory or a disk-like record medium temporarily, and it is based on a control signal SC from a system controller 43. [whether a direct output is carried out to the channel coding circuit 21 which continues without recording the record data DR1 which become by the image data DV outputted from the error correction code addition circuit 17, and voice data DA, and] Or therefore, it outputs to the back first in first out which the record data DR1 outputted were once memorized [first out], and carried out predetermined time delay from the error correction code addition circuit 17 as read-out record data DR2 in the channel coding circuit 21.

[0022] After the channel coding circuit 21 performs record coding processing for recording on a magnetic tape to the image data DV outputted through a record medium 19 the error correction code addition circuit 17 and temporarily, and voice data DA, it is recorded on the magnetic tape (not shown) with which amplifies this through the record amplifier 22 and tape transport 23 is loaded through the magnetic head of rotating-drum equipment.

[0023] Moreover, after acquiring a regenerative signal SP from the magnetic tape with which tape transport 23 is loaded at the time of playback through the magnetic head of a rotating drum and carrying out signal magnification of this in the playback amplifier 31, in the data extraction section 32, a regenerative signal is acquired with a playback clock extract and its clock.

[0024] Decoding processing is performed to record coding performed in order to record on a tape in the channel decoding circuit 33 after that, error correction processing is performed in the continuing error correction processing circuit 34, and the playback compression image data DVP and playback voice data DAP are obtained.

[0025] By carrying out decoding in the compression decoding block 35, compression is solved and the playback compression image data DVP are sent out to a frame memory 39. Deblocking processing which returns blocking of the 8x8-pixel unit given at the time of record is performed, and a frame memory 39 acquires the playback video signal SV by changing the output of the frame memory 39 concerned into an analog signal in the digital-to-analog conversion circuit 41.

[0026] Moreover, playback voice data DAP outputted from the error correction processing circuit 34 acquires the playback sound signal SA by being changed into an analog signal in the digital-to-analog conversion circuit 42, after day interleave processing in which processing of the interleave given in the audio regenerative-signal processing circuit 37 at the time of record is returned is performed.

[0027] The system controller 43 is made here as [send / temporarily / to a record medium 19 / based on the user assignment information SU that it is inputted from the performance information SD and the user interface 45 of the magnetic tape inputted from tape transport 23 / the record command SC].

[0028] By performing continuation recording-mode procedure shown in drawing 2, a system controller 43 records the recording information which specified record actuation of the recording information over a record medium 19 temporarily, and followed the magnetic tape before the exchange at the time of tape exchange, and the magnetic tape after exchange here.

[0029] That is, if a system controller 43 goes into the procedure concerned from a step SP 1, it will judge whether record halt actuation was performed in a step SP 2. If an affirmation result is obtained here, this expresses what record halt actuation was inputted into the line intermediary user interface 45 to the record stop signal for to the user by the system controller 43, and at this time, by sending out a record stop signal to a step SP 5 to the ***** tape transport 23, a system controller 43 will stop record actuation and will end the procedure concerned in a step SP 6.

[0030] On the other hand, if a negative result is obtained in a step SP 2, it will mean that this continues

that the user does not specify the record halt, i.e., record, and a system controller 43 will judge whether therefore ejection (ejection) actuation of a magnetic tape was given to the ***** user at a step SP 3 at this time.

[0031] If a negative result is obtained here, a system controller 43 will repeat the processing same to the above-mentioned step SP 2 as ***** on the other hand, the condition that, as for this, record halt actuation is not made if an affirmation result is obtained in a step SP 3 -- a user -- ejection actuation of a magnetic tape -- ***** -- things are expressed and a system controller 43 performs a ***** continuation recording mode to the continuing step SP 4 at this time.

[0032] That is, the system controller 43 concerned makes the record data DR1 hold to a record medium 19 temporarily, if a continuation recording mode is specified as a system controller 43, after the user assignment information SU that it means that ejection actuation was made from the user interface 45 is inputted.

[0033] that is, it is shown in drawing 3 -- as -- Time t -- if ejection actuation is made in 1, a system controller 43 will record the information which was being outputted to the direct channel coding circuit 21, without making a record medium 19 memorize as record data DR1 till then temporarily on a record medium 19 from t1 temporarily at the time concerned.

[0034] here -- Time t -- if it is loaded with a new magnetic tape in 2 and exchange of a tape is completed -- one time -- a record medium 19 -- Time t -- the recording information which started record from 1 is outputted as read-out record data DR2 in order of the record. Thus, in the period T1 to t3, the record data DR1 are continuously recorded in a record medium 19 temporarily the time of record termination being specified from t1 at the tape exchange initiation time, the record data DR1 are delayed and this is outputted as read-out record data DR2 only for tape exchange period T 0 minute.

[0035] The record data DR1 (drawing 3 (A)) inputted into a record medium 19 as a result temporarily are outputted as read-out record data DR2 (drawing 3 (B)) from t2 at the tape exchange termination time, and the record actuation to a magnetic tape ends them in t4 the time of only a time delay T0 being delayed from t3 the time of record halt actuation being made.

[0036] Therefore, it is recorded continuously, without the information REC2 after tape exchange breaking off as read-out record data DR2 to the information REC1 before tape exchange of a series of record data DR1 to a magnetic tape.

[0037] Therefore, according to the above configuration, when tape exchange is made, a series of record data can be continuously recorded on the magnetic tape before exchange, and the magnetic tape after exchange by recording on a record medium 19 from the record data under tape exchange temporarily.

[0038] Incidentally the storage capacity of a record medium 19 should just be the capacity which can record the record data DR1 in the tape exchange period T0 temporarily.

[0039] In addition, although the case where only the tape exchange period T0 concerned was always delayed after tape exchange, and record data were recorded on a magnetic tape in an above-mentioned example was described As this invention is shown in drawing 4 which attaches and shows the same sign to a corresponding point not only with this but drawing 3 By accelerating the record actuation to the read-out clock and magnetic tape of the read-out record data DR2 which are read from a record medium 19 considering t2 as a read-out initiation point in time temporarily at the tape exchange termination time The record data DR1 written in a record medium 19 in t2' temporarily the time of the write-in address and the read-out address of a record medium 19 being in agreement temporarily and the read-out record data DR2 read from a record medium 19 temporarily [concerned] are in agreement.

[0040] Therefore, while the record data DR1 are recorded on a record medium 19 temporarily in the period T11 to time tt1 to 2' at the tape exchange initiation time In the period T12 to time tt2 to 2', the read-out record data DR2 are read from a record medium 19 temporarily at the tape exchange termination time. A direct output can be carried out without recording the record data DR1 on a record medium 19 in the period T13 to t3 temporarily the time of record halt actuation being made from concerned time t2'.

[0041] Therefore, in the period T13 concerned, record actuation to a magnetic tape can usually be performed at a rate, and the record actuation to a magnetic tape can be ended in t3 the time of record halt

actuation being made.

[0042]

[Effect of the Invention] According to this invention, record data are written in a record means in order of the arrival as mentioned above temporarily from the time of carrying out exchange initiation of the tape-like record medium. By recording on the tape-like record medium for which the record data written in the record means from the exchange termination time of a tape-like record medium temporarily were read in order of the writing, and were exchanged It can record without breaking off a series of record data to the tape-like record medium before exchange, and the tape-like record medium after exchange.

[Translation done.]